Amendments to the Claims:

1. **(Original)** A polygonal barrel sputtering device comprising:

a vacuum container for containing fine particles which has a polygonal internal shape on a cross section substantially parallel with a gravitational direction;

a rotating mechanism for rotating said vacuum container about a rotating axis which is substantially perpendicular to said cross section; and

a sputtering target arranged in said vacuum container,

wherein sputtering is performed while stirring or rolling the fine particles in said vacuum container by rotating said vacuum container using said rotating mechanism so that surface of the fine particle is coated with ultra-fine particles having a grain diameter smaller than the fine particle or thin films.

2. **(Original)** A polygonal barrel sputtering device according to claim 1 further comprising a vibrator for vibrating said vacuum container.

3. **(Currently amended)** A polygonal barrel sputtering device according to claim 1 ~~or 2~~ further comprising a heater for heating the fine particles contained in said vacuum container.

4. **(Currently amended)** A polygonal barrel sputtering device according to ~~any one of claims 1 to 3~~ claim 1 further comprising a rod-like member contained in said vacuum container, wherein said rod-like member vibrates the fine particles so as to promote stirring and rolling the fine particles while said vacuum container is being rotated.

5. **(Original)** A polygonal barrel sputtering method comprising:

a step for containing fine particles in a vacuum container having a polygonal internal shape on a cross section, which is substantially parallel with a gravitational direction; and

a step for performing sputtering while stirring or rolling the fine particles contained in said vacuum container by rotating said vacuum container about a rotating axis, which is substantially perpendicular to said cross section, whereby surface of the fine particle is coated with ultra-fine particles having a grain diameter smaller than the fine particle or thin films.

6. **(Original)** A polygonal barrel sputtering method comprising:

a step for containing fine particles in a vacuum container having a polygonal internal shape on a cross section; and

a step for performing sputtering while stirring or rolling the fine particles contained in said vacuum container by rotating said vacuum container about a rotating axis, which is substantially perpendicular to said cross section, and also vibrating the fine particles, whereby surface of the fine particle is coated with ultra-fine particles having a grain diameter smaller than the fine particle or thin films.

7. **(Original)** A polygonal barrel sputtering method comprising:

a step for containing fine particles in a vacuum container having a polygonal internal shape on a cross section; and

a step for performing sputtering while stirring or rolling the fine particles contained in said vacuum container by rotating said vacuum container about a rotating axis, which is substantially perpendicular to said cross section, and also heating said vacuum container, whereby surface of the fine particle is coated with ultra-fine particles having a grain diameter smaller than the fine particle or thin films.

8. **(Original)** A coated fine particle which is formed such that sputtering is performed while stirring or rolling the fine particles contained in a vacuum container having a polygonal internal shape on a cross section by rotating said vacuum container about a rotating axis, which is

substantially perpendicular to said cross section, whereby surface of the fine particle is coated with ultra-fine particles having a grain diameter smaller than the fine particle or thin films.

9. **(Original)** A coated fine particle which is formed such that sputtering is performed while stirring or rolling the fine particles contained in a vacuum container having a polygonal internal shape on a cross section by rotating said vacuum container about a rotating axis, which is substantially perpendicular to said cross section, and also vibrating the fine particles, whereby surface of the fine particle is coated with ultra-fine particles having a grain diameter smaller than the fine particle or thin films.

10. **(Original)** A coated fine particle which is formed such that sputtering is performed while heating a vacuum container containing fine particles therein having a polygonal internal shape on a cross section and also stirring or rolling the fine particles contained in said vacuum container by rotating said vacuum container about a rotating axis, which is substantially perpendicular to said cross section, whereby surface of the fine particle is coated with ultra-fine particles having a grain diameter smaller than the fine particle or thin films.

11. **(Currently amended)** A coated fine particle according to ~~any one of claims 8 to 10~~ claim 8, wherein said ultra-fine particles or said thin films are made of any one of polymeric material, inorganic material, metallic material, alloy material and carbon material.

12. **(Currently amended)** A coated fine particle according to ~~any one of claims 8 to 10~~ claim 8, wherein said fine particle is made of ceramics and said ultra-fine particles or said thin films are made of any one of catalytic substance, electrochemical catalytic substance, optical functional substance, magnetic functional substance and electric and electronic functional substance.

13. **(Currently amended)** A coated fine particle according to ~~any one of claims 8 to 10~~ claim 8, wherein said fine particle is made of any one of polymeric material, organic material, metallic material, inorganic material and carbon material.

14. **(Original)** A producing method of a micro capsule comprising:

a step for containing fine particles in a vacuum container having a polygonal internal shape on a cross section substantially parallel with a gravitational direction;

a step for performing sputtering while stirring or rolling the fine particles contained in said vacuum container by rotating said vacuum container about a rotating axis, which is substantially perpendicular to said cross section, whereby surface of the fine particle is coated with ultra-fine particles having a grain diameter smaller than the fine particle or thin films; and

a step for removing the fine particle, which is a base of the coated fine particle, from the coated fine particle.

15. **(Original)** A producing method of a micro capsule comprising:

a step for containing fine particles in a vacuum container having a polygonal internal shape on a cross section;

a step for performing sputtering while stirring or rolling the fine particles contained in said vacuum container by rotating said vacuum container about a rotating axis, which is substantially perpendicular to said cross section, and also vibrating the fine particles, whereby surface of the fine particle is coated with ultra-fine particles having a grain diameter smaller than the fine particle or thin films; and

a step for removing the fine particle, which is a base of the coated fine particle, from the coated fine particle.

16. **(Original)** A producing method of a micro capsule comprising:

a step for containing fine particles in a vacuum container having a polygonal internal shape on a cross section;

a step for performing sputtering while heating the vacuum container and also stirring or rolling the fine particles contained in said vacuum container by rotating said vacuum container about a rotating axis, which is substantially perpendicular to said cross section, whereby surface of the fine particle is coated with ultra-fine particles having a grain diameter smaller than the fine particle or thin films; and

a step for removing the fine particle, which is a base of the coated fine particle, from the coated fine particle.

17. **(Original)** A micro capsule which is made such that fine particles are contained in a vacuum container having a polygonal internal shape on a cross section, and sputtering is performed while stirring or rolling the fine particles contained in said vacuum container by rotating said vacuum container about a rotating axis, which is substantially perpendicular to said cross section, whereby surface of the fine particle is coated with ultra-fine particles having a grain diameter smaller than the fine particle or thin films and then the fine particle, which is a base of the coated fine particle, is removed from the coated fine particle.

18. **(Original)** A micro capsule which is made such that fine particles are contained in a vacuum container having a polygonal internal shape on a cross section, and sputtering is performed while stirring or rolling the fine particles contained in said vacuum container by rotating said vacuum container about a rotating axis, which is substantially perpendicular to said cross section, and also vibrating the fine particles, whereby surface of the fine particle is coated with ultra-fine particles having a grain diameter smaller than the fine particle or thin films and then the fine particle, which is a base the coated fine particle, is removed from the coated fine particle.

19. **(Original)** A micro capsule which is made such that fine particles are contained in a vacuum container having a polygonal internal shape on a cross section, and sputtering is performed while heating said vacuum container and also stirring or rolling the fine particles contained in said vacuum container by rotating the vacuum container about a rotating axis, which is substantially perpendicular to said cross section, whereby surface of the fine particle is coated with ultra-fine particles having a grain diameter smaller than the fine particle or thin films and then the fine particle, which is a base of the coated fine particle, is removed from the coated fine particle.

20. **(New)** A polygonal barrel sputtering device according to claim 2 further comprising a heater for heating the fine particles contained in said vacuum container.

21. **(New)** A polygonal barrel sputtering device according to claim 2 further comprising a rod-like member contained in said vacuum container, wherein said rod-like member vibrates the fine particles so as to promote stirring and rolling the fine particles while said vacuum container is being rotated.

22. **(New)** A polygonal barrel sputtering device according to claim 3 further comprising a rod-like member contained in said vacuum container, wherein said rod-like member vibrates the fine particles so as to promote stirring and rolling the fine particles while said vacuum container is being rotated.

23. **(New)** A coated fine particle according to claim 9, wherein said ultra-fine particles or said thin films are made of any one of polymeric material, inorganic material, metallic material, alloy material and carbon material.

24. **(New)** A coated fine particle according to claim 10, wherein said ultra-fine particles or said thin films are made of any one of polymeric material, inorganic material, metallic material, alloy material and carbon material.

25. **(New)** A coated fine particle according to claim 9, wherein said fine particle is made of ceramics and said ultra-fine particles or said thin films are made of any one of catalytic substance, electrochemical catalytic substance, optical functional substance, magnetic functional substance and electric and electronic functional substance.

26. **(New)** A coated fine particle according to claim 10, wherein said fine particle is made of ceramics and said ultra-fine particles or said thin films are made of any one of catalytic substance, electrochemical catalytic substance, optical functional substance, magnetic functional substance and electric and electronic functional substance.

27. **(New)** A coated fine particle according to claim 9, wherein said fine particle is made of any one of polymeric material, organic material, metallic material, inorganic material and carbon material.

28. **(New)** A coated fine particle according to claim 10, wherein said fine particle is made of any one of polymeric material, organic material, metallic material, inorganic material and carbon material.